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THE NATURE CONSERVANCY NEWS

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Our Partners in Conservation 4
Robert E. Jenkins

Portfolio: A showcase of projects that represent the Conservancy's broad range of cooperative endeavors 8

New Projects 24

COVER: Beachcombing yellowlegs at Bon Secour National Wildlife Refuge in Alabama—a wildland expanse protected by the U.S. Fish and Wildlife Service in partnership with The Nature Conservancy. Photo by John M. Hall.

The Nature Conservancy is a national conservation organization committed to the preservation of natural diversity by protecting lands and waters supporting the best examples of all elements of our natural world.

To date the Conservancy and its members have been responsible for the preservation of 2,130,568 acres of forests, marshes, prairies, mountains, deserts, and islands: home to rare and endangered species of wildlife and plants. 3,418 projects have been completed since the acquisition of the first preserve in 1954. Approximately 60% of all preserves are retained by the Conservancy and managed by staff and volunteer land stewards.

A membership organization, the Conservancy was incorporated in 1951 in the District of Columbia for scientific and educational purposes. The Nature Conservancy is a nonprofit, tax-exempt corporation under Section 501(c)(3) of the Internal Revenue Code and is a publicly supported organization as defined in Sections 170(b)(1)(vi) and 509(a). All contributions are tax deductible.

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The Nature Conservancy

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Our Partners in Conservation

By Robert E. Jenkins
Vice President for Science

NO ORGANIZATION is an island. Each relates to many others in numerous and complex ways, often to mutual advantage. One of The Nature Conservancy's fundamental precepts has always been that it can accomplish the most by recognizing the legitimate interests of other parties and attempting to accommodate those concerns along with its own conservation objectives. The Conservancy often sums up this idea in the phrase, "we can work with you." This issue of the *News* honors the many government agencies, conservation organizations, citizens groups, corporations, foundations, and other institutions that have worked generously and unflaggingly with us to achieve common conservation goals.

Some Conservancy members and friends may not be fully aware of the range and complexity of the organization's cooperative relationships. These interactions extend from sharing scientific data to sharing financial risks, from joint completion of projects to joint management of preserves. In a sense, we are *never* operating strictly alone: over the years our partner institutions have numbered in the hundreds, possibly in the thousands.

Even during the days of Conservancy "prehistory," cooperation was the rule. Indeed, our precursor organization, a special committee of the Ecological Society of America, was composed of cooperating scientists from many institutions. All shared a common interest in biological conservation. This sort of diverse sponsorship continued right up to the incorporation of The Nature Conservancy in 1951: three out of four of the signatories were executives of other national conservation organizations.

The Conservancy's earliest conservation efforts all involved outside interactions with other agencies or organizations. Mianus River Gorge Preserve, generally conceded to be our first active project, was begun under the auspices of an *ad hoc* citizens group, until then unaffiliated with the Conservancy. Other initial allies included institutions that managed lands the Conservancy acquired—as the University of California does for Landels Hill-Big Creek and as Rutgers University has always done for the William L. Hutcheson Memorial Forest in New Jersey. In addition, there are agencies that have managed their holdings adjacent to Conservancy properties to ensure protection of the entire ecosystem, as the Bureau of Land Management has done with its land next to our Northern California Coast Range Preserve (see page 16). There are also countless other "partners," such as garden clubs, scout troops, botanical societies, schools, civic groups, and like-minded conservation organizations, that have assisted the Conservancy in its fund-raising efforts for projects all across the country.

ONE OF THE CONSERVANCY'S earliest activities was to identify jeopardized natural areas through ecological inventories. Begun by the Ecological Society's committee, this endeavor has continued through many stages. From 1951 onward, scientists operating under Conservancy auspices instigated or participated in nearly every

significant conservation inventory undertaken in the United States, usually in conjunction with a variety of other institutions. These efforts evolved into Conservancy-designed natural heritage inventories now being carried out with government agencies in 33 states, the Tennessee Valley Authority Region, the Navajo Nation, Puerto Rico, and several Latin American countries.

Nothing we do more thoroughly demonstrates a close interdependence among institutions than these programs. Typically, The Nature Conservancy provides the initial inventory expertise; all involved parties cooperate to secure the needed funds. Our partner agency provides the place to "house" the inventory staff and facilities; the Conservancy oversees early administration. The agency eventually takes over permanent maintenance and enhancement of the program; and innumerable public and private organizations apply the inventory's results to guide their own conservation, resource-management, and development-planning decisions.

PUBLIC AGENCIES, state and federal, often ask the Conservancy to obtain specific sites that have been authorized for acquisition (typically to be included in existing refuges or parks) but that have been placed on the market before the necessary appropriations are available to purchase the areas. Once the agencies secure the funds, the properties are conveyed to them at Conservancy cost. Because the Conservancy often acquires lands at prices lower than fair market value, this technique not only saves vital lands that otherwise might have been lost but also provides considerable savings to taxpayers.

After some early experiments in the 1950's, these "government cooperation projects"—or simply "co-ops"—increased in size and number in the mid-'60's: they were clearly identified as an ideal method of land conservation. One of the Conservancy's first large co-ops was Mason Neck in northern Virginia. It eventually entailed the acquisition of more than a dozen separate properties, which were transferred to the Northern Virginia Park Authority, the Virginia Department of Conservation and Economic Development, and the U.S. Fish and Wildlife Service.

With its closely shared interest in biological conservation—evidenced by its national wildlife refuge system and endangered species programs—the U.S. Fish and Wildlife Service has been one of our most valued federal partners in natural-area preservation. It has supplied the "targets" and the ulti-

Robert W. Parvin

A host of white pelicans at Anahuac National Wildlife Refuge on the Texas Gulf Coast. In partnership with the U.S. Fish and Wildlife Service, the Conservancy has protected some 65,000 acres of prime wetlands here—feeding and wintering grounds for innumerable waterfowl.

mate funding, while the Conservancy has provided speed, flexibility, bargaining ability, and a willingness to take risks. As a result, a large number of biologically critical sites have been saved, which would not have been the case had either institution worked alone. Of some 65 areas jointly protected with Fish and Wildlife, highlights include Massachusetts's Crooked Pond, San Bernard National Wildlife Refuge in Texas, Maryland's Blackwater Wildlife Refuge, Petit Manan Point in Maine, the Mississippi Sandhill Crane Sanctuary, New Mexico's 220,200-acre Sevilleta National Wildlife Refuge, Georgia's Okefenokee Swamp, the San Francisco Bay Project (Tubbs Island), Crocodile Lake and Crystal River Manatee Sanctuary in Florida, and—most recently—Nevada's Ash Meadows.

PRESERVING HABITATS and critical ecosystems "in perpetuity" has always been the Conservancy's aim. This necessitates far more than simple acquisition of an area; it must be adequately managed, maintained, and monitored as well. Numerous other institutions have been crucial in helping us meet this obligation. Indeed, over 75 percent of the acreage preserved by the Conservancy is owned and cared for by other agencies, public and private. Beyond the cases in which this arrangement was preordained, as in co-ops, many others have involved careful selection of the most appropriate stewardship entity for specific sites. Primary criteria for choosing such an agency are adequate resources (funds and staff) and greater local management ability than our own. The National Audubon Society, for example, manages both the Four Hole/Beidler Swamp in South Carolina and the Ordway-Whittell Kissimmee Prairie in Florida, two of the projects originally protected through our combined efforts.

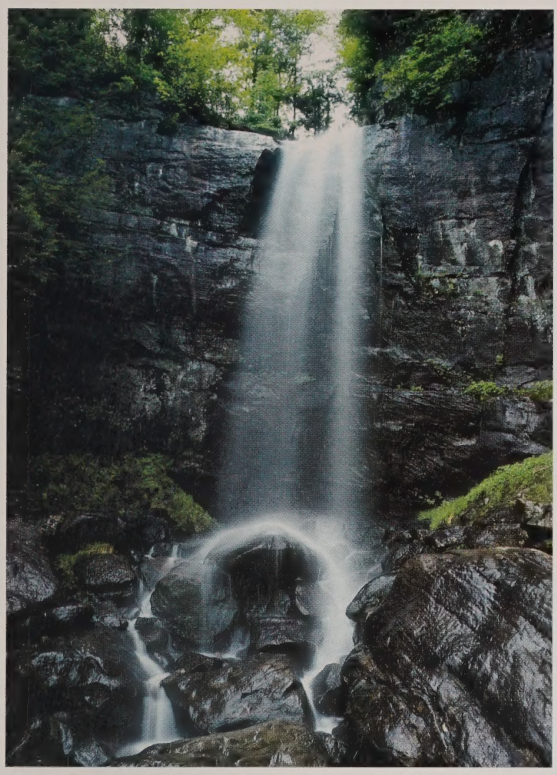
Cooperative stewardship has assumed many forms. In Missouri, many Conservancy-owned prairies and other natural communities are managed by the Missouri Department of Conservation, while in Minnesota, we are assisting the state in maintaining several of its prairie preserves. In Michigan and Virginia, the Conservancy manages rare plant sites on corporation-owned railroad rights-of-way.

Even after a property has been transferred to another institution—with use restrictions—the Conservancy is often active in management planning and annual monitoring of the area's ecological health. Another expanding realm for stewardship cooperation is research. In some situations, the Conservancy is defining management problems for investigation by university scientists and graduate students; in others, information on such topics as prairie management is being compiled by numerous institutions working together. Pooling efforts in these ways permits selected specialization or division of labor, thus enabling the cooperating agencies to be more efficient than they would be operating alone.

The "parceling out" of tasks is bound to increase as time goes on. As the need to preserve biological diversity becomes more widely recognized, as heritage-style information management makes conservation planning more systematic, and as our natural lands continue to dwindle, land conservation institutions will be working together more and more frequently.

For example, the Tennessee Protection Planning Committee meets four times a year to coordinate natural-area protection efforts throughout the state. It is composed of representatives from the Tennessee Department of Conservation, the U.S. Fish and Wildlife Service, the Trust for Public Land, Tennessee's Wildlife Resources Agency, the Tennessee Valley Authority Heritage Project, The Nature Conservancy, and scientists from various state institutions. The committee's methodology is simple. Areas identified by heritage program inventories are brought to the group's attention for evaluation. Sites accepted by the committee as worthy of protection are assigned to the appropriate volunteering agencies and programs, which carry out the tasks related to the areas' preservation. As a result of these deliberations, the Conservancy has increasingly entered into three- and even four-way arrangements for safeguarding individual sites. For example, habitat for the barrens top minnow, a fish species proposed for federal protection, is being preserved through an agreement struck by the Conservancy, the Tennessee Wildlife Resources Agency, and the property's owner.

MANY KINDS OF PROTECTION techniques are being used in such partnerships. We discovered long ago that good information on the ecological significance of a particular property —once it is made available to the landowner or manager—could go far to avert destruction of the site. This led to the initiation of state landowner contact and registry programs, modeled in part on the National Park Service's Registry of National Natural Landmarks, various state registries, and the pioneering work of the Natural Land Institute in Illinois. Now being implemented in some form in about half the states with well-developed heritage inventories, these programs are sometimes administered by The Nature Conservancy, sometimes by the state, often by the two together. They frequently involve outside groups as well.



Pam Spaulding

Agreements between landowners and a joint state/ Conservancy registry program have brought an entire watershed under protection at Bad Branch Preserve in Kentucky.

Another method of protection, designation, was conceived by the U.S. Forest Service and first used in 1927. It is a means of implementing prescribed forms of conservation management on selected natural areas on public lands. Over the years, this agency has taken the lead in establishing more than a hundred "research natural areas" across the country—sites that represent the best examples of a vast cross-section of America's plant communities and ecosystems. Many agencies are now working together in this endeavor. For instance, the Pacific Northwest Research Natural Area Committee conducts intensive ecological studies and seeks advice from other conservation institutions in order to recommend the designation of "research natural areas" on federal lands. The committee is made up of representatives from the U.S. Forest Service, the Bureau of Land Management, the National Park Service, the U.S. Fish and Wildlife Service, and the Departments of Energy and Defense.

The Nature Conservancy has been closely involved in designation efforts—even to the extent of helping draft guidelines and procedures for ascertaining the sites that qualify as "research natural areas," "areas of critical environmental concern," "outstanding natural areas," and so on. Congressionally mandated planning schedules for several federal agencies are stressing the need to designate greater numbers of these sites, and cooperation is intensifying as a result. Because the Conservancy maintains the only comprehensive list of "research natural areas" nationwide and because the natural heritage inventories are becoming the best sources of ecological information across the country, we are well-equipped to continue assisting various agencies in this task. In the West, particularly, we are not only supplying data needed to document the significance of critical lands but identifying and recommending specific sites for designation as well.

As such cooperative efforts become more systematic, the array of protection tools being used by all parties is widening to include conservation easements, leases, dedications, management agreements, rights of first refusal, outright gifts, partial-rights acquisitions, etc. Assembling the conservation lands needed to ensure preservation of a specific species, habitat, or natural community may require the use of more than one of these techniques. Nags Head Woods, a 639-acre maritime forest preserve lodged among the back barrier dunes of North Carolina's Outer Banks, was created through gifts of land, outright acquisitions, leases from a public agency, and a management agreement. An enclave of rare plants and animals, the Conservancy's Bad Branch Preserve in Kentucky initially entailed two purchases and a management lease totaling 809 acres. Then, with two registrations of land embracing 1,732 acres, the Conservancy succeeded in safeguarding the entire watershed that nourishes Bad Branch.

EXPERTS IN MANY FIELDS are pointing out that with population growth, technological innovations, and continuing scientific discoveries, we live in an increasingly interdependent world. No one person, no institution, no country is very far removed geographically or operationally from its counterparts. Growing collaboration is an inevitable consequence. If the human race is to survive and prosper, it must strive to make its joint ventures beneficial and complementary. This will require wisdom, forebearance, and good will.

We are pleased to devote this issue of *The Nature Conservancy News* to our many partners in conservation. It is not possible, of course, to specifically mention and honor more than a fraction of the institutions with which we are working (and with which we wish to work in the future), but we hope they will all understand how highly we regard their partnership and how deeply we appreciate their efforts.

C. C. Lockwood

Prothonotary warbler

Great Dismal Swamp

A LINGERINGLY PRIMITIVE wilderness, the Great Dismal Swamp sprawls for about 35 miles along either side of the Virginia-North Carolina border. Its bald cypress trees tower above the shallows of Lake Drummond (at the swamp's center)—testimonials to the once vast primeval cypress forest that covered the area. The Great Dismal's rich waters sustain an extraordinary intermingling of northern and southern flora. About 75 bird species are known to nest in the refuge, while a much larger number are migrating visitors.

Celebrated as the Conservancy's first significantly large corporate land donation, the Great Dismal Swamp was established as a wildlife refuge in 1972 through a 49,000-acre gift from the Union Camp Corporation. As a result of several purchases and another donation of 11,000 acres from the Weyerhaeuser Company, the sanctuary now spans 89,055 acres. Through the Conservancy's partnership with the U.S. Fish and Wildlife Service, the bulk of the land was transferred to that agency for management, while the State of North Carolina cares for 7,548 acres.

Lower Suwannee River

STORIES OF COOPERATION between the Conservancy and the U.S. Fish and Wildlife Service are numerous and varied, spelling protection for critical habitats throughout the nation. In Florida alone, the Conservancy has acquired lands for ten national wildlife refuges.

Conservancy projects along Florida's Lower Suwannee River date back to the early 70's and take in some 17,000 acres: islands, tidal marshes, floodplain swamps, hydric hammocks, mesic flatwoods, uplands. . . . From its Florida Gulf border to its farthest inland reaches, the 52,000-acre national wildlife refuge of which these lands are now part bears 15 miles of the river itself, summering grounds for nationally endangered West Indian manatees (the same population for which the Conservancy has successfully protected wintering habitat in Crystal River to the south).

The Conservancy's most recent acquisition here (11,885 acres in 1983) hosts bald eagles and eastern brown pelicans, both endangered throughout their ranges, as well as large concentrations of nesting swallow-tailed kites. Part of the land has been conveyed to the Suwannee River Water Management District—the rest to the U.S. Fish and Wildlife Service, which manages both portions within its Lower Suwannee River National Wildlife Refuge. The Conservancy is working with the water management district to protect other naturally significant sections of the river.

Tim Loomis

R. Michael Wright

Dominica

IN 1975, INTERNATIONAL conservationist John D. Archbold donated 950 acres on the rugged West Indian island of Dominica to The Nature Conservancy. Long acclaimed for the luxuriance of its tropical rain forest, said to be the best in the Lesser Antilles, Middleham Estate was part of a wilderness expanse targeted for protection by the Dominican government in cooperation with several outside groups, including the Canadian Nature Federation (whose efforts were funded by the Canadian International Development Agency) and the U.S.-based Conservation Foundation.

Sixteen-thousand-acre Trois Pitons National Park was soon established on lands neighboring the estate. After leasing the Archbold property for management within the park for some years, the Conservancy donated it to Dominica in August of 1982. The ecological significance of Trois Pitons' wildlife-rich habitats—rain forest, elfin woodland, montane thicket, and palm brake among them—has been formally recognized by the International Union for Conservation of Nature and Natural Resources, which has recommended the park for United Nations designation as a "world heritage site." The Conservancy has worked with foreign governments to establish ecological reserves in other parts of the Caribbean as well as in Canada and Latin America.

Steens Mountain

AT THE REQUEST of the federal Bureau of Land Management, staff of the Conservancy's Oregon Natural Heritage Program helped review bureau holdings throughout the state and recommended that some 25,000 acres of these public lands be classified as natural areas. Many of the sites are now managed by the bureau as formally designated "research natural areas" or as "areas of critical environmental concern." Several of these properties (perhaps the most scenic) occur on Steens Mountain.

An "island" surrounded by semiarid deserts, Steens is the highest mountain in Oregon not shrouded in conifers. Its vast glacially carved valleys support a variety of uncommon plant species and communities. A particular gorge, called the Little Blitzen Research Natural Area, bears one of southeastern Oregon's greatest concentrations of jeopardized plants, as well as aspen groves, late-lying snowbeds, alpine plant communities, and a small, high-elevation fescue grassland.

The Oregon Natural Heritage Program also is under contract to the U.S. Forest Service to supply information on critical habitats on this agency's lands. As a result, several sites have been identified and proposed for designation as research natural areas.

Bob Frankel

J. Blakeman

Coneflowers

Edge of Appalachia Preserve System

DURING ITS YOUTH, in the 1950's, the Conservancy purchased many natural areas for management by other groups. This was true of the first tract acquired in 1959 for what is now Ohio's sprawling and diverse Edge of Appalachia Preserve System: eight contiguous preserves totaling over 4,500 acres of prairie openings and woodlands and hosting some 50 rare plant species. That 40-acre parcel, and those subsequently acquired, were cared for by the Cincinnati Museum of Natural History.

Today, the relationship between the museum and the Conservancy's Ohio Field Office has evolved into a true partnership—literally a sharing of tasks. Both groups own lands within the system and both continue to acquire additional parcels. Though the museum still oversees the day-to-day care of the preserves, and now employs a full-time resident manager, it relies on the Conservancy's ecological studies to determine the system's management needs.

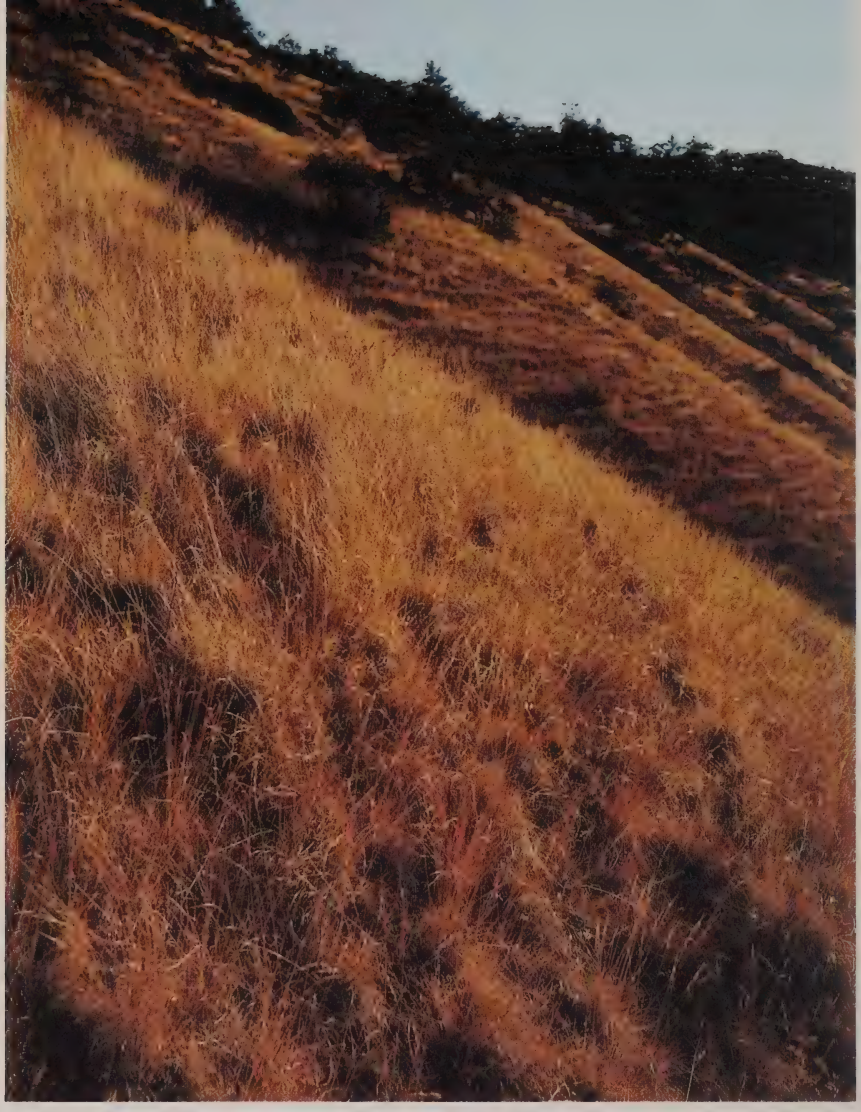
Aravaipa Canyon

THE ASSISTANCE OF OTHER national conservation organizations has been invaluable to the completion of a number of projects in the Conservancy's history. A notable example involves Defenders of Wildlife and Aravaipa Canyon in Arizona's Galiuro Mountains. In 1970, the Conservancy undertook the purchase of a 4,100-acre ranch at the west end of one of the finest desert canyons in the state. Defenders of Wildlife, an educational nonprofit devoted to wildlife protection, joined in—providing essential funding from the estate of conservationist George Whittell.

Working closely with the federal Bureau of Land Management (BLM), which owns most of the 12-mile-long canyon itself (a "primitive area" currently under consideration in Congress for protection as a designated "wilderness"), the Defenders of Wildlife Trust for the George Whittell Wildlife Preserve at Aravaipa Canyon manages the sanctuary. The Trust's responsibility extends across 26,000 acres—not only the lands it owns in fee, now some 6,000 acres all told, but also the lands it leases from the state (18,700 acres) and the BLM (1,300 acres).

Prominent among Aravaipa's inhabitants are two native fish species (spikedace and loach minnow) currently under consideration for federal protection, black hawks, mountain lions, and bighorn sheep. Their continuing health bears witness to the intelligence of working cooperatively toward conservation goals.

C. Allan Morgan



Badger Gulch

AFTER FOUR YEARS of research and field surveys, the Washington Natural Heritage Program identified the best remnants of the Columbia Basin's original grasslands—natural communities that rank high on the Conservancy's list of national critical areas. One of these sites, the Washington Department of Natural Resources' Badger Gulch, hosts four different native bunchgrass communities and an oak woodland.

Acquisition of this 180-acre parcel and two other state natural area preserves became possible in 1979, when the Washington legislature authorized the Department of Natural Resources to exchange its surplus administrative properties for ecologically significant lands. Since the department did not have personnel available to negotiate the transactions, the Conservancy's Washington Field Office agreed to purchase parcels pinpointed by the agency and trade them for the surplus sites. The Conservancy then sold these areas to regain its acquisition expenditures. This cooperative arrangement greatly expands the Department of Natural Resources' preserve system and affords much broader natural-area protection than either organization could accomplish alone.

Mormon Island

AN ORGANIZATION dedicated to preserving Platte River habitat for migratory birds, the Platte River Whooping Crane Habitat Maintenance Trust is administered by representatives of the State of Nebraska, the National Wildlife Federation, and Basin Electric Power Cooperative. Working with The Nature Conservancy, the Trust undertook, in 1979, to purchase 2,000 acres on Mormon Island. Each spring, this isle and nearby Shoemaker Island (where the Trust subsequently preserved an additional 1,200 acres) attract most of North America's population of migrating lesser sandhill cranes.

Mormon Island Crane Meadows is owned and managed by the Trust, while the Conservancy holds a conservation easement on the property to ensure its protection in perpetuity. The Conservancy prepared the management plan now in use at Mormon Island. By safeguarding and maintaining habitat along the Platte, both groups are working together to prevent further destruction of the cranes' key feeding and resting areas. They also hope to increase the chances that the area will once again draw the nationally endangered whooping crane, fewer than 100 of which exist in the wild.

Sandhill cranes

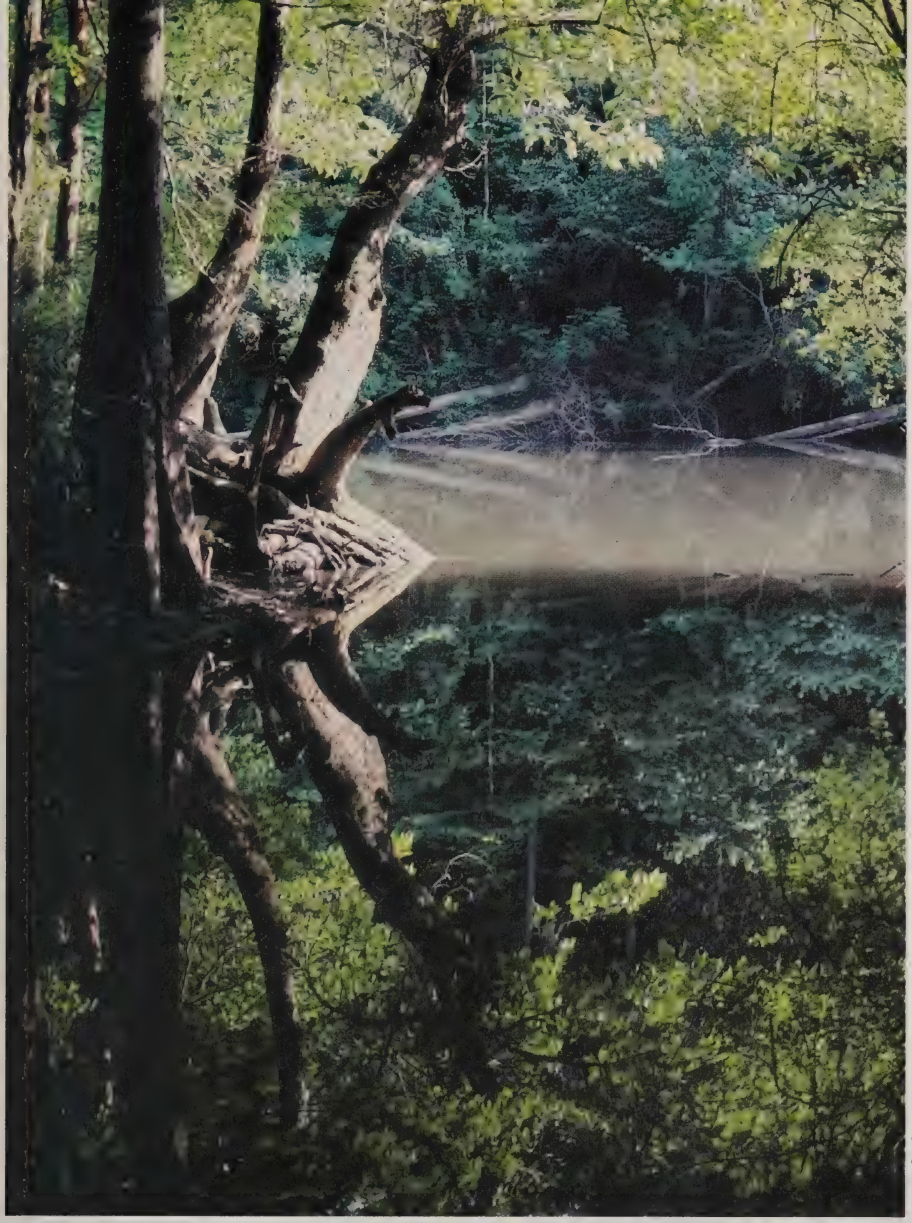
Thomas D. Mangelsen

Susan Bournique

Northern California Coast Range Preserve

BECAUSE ecological boundaries rarely coincide with legal boundaries, cooperation among neighbors can be the key to protecting natural systems. The watershed of California's Elder Creek, clear-water tributary of the Eel River, is a case in point. Having established one of its finest sanctuaries in 1957 on a 4,000-acre expanse of extraordinarily beautiful old-growth forest—property of conservationists Heath and Marjorie Angelo—the Conservancy took over stewardship of the creek and began to work with the neighboring landowner, the federal Bureau of Land Management. The two pooled efforts to safeguard the wild character of the watercourse, with the federal agency designating 3,500 acres of its holdings an "area of critical environmental concern" and allowing the Conservancy to manage it under the terms of a cooperative agreement.

The Northern California Coast Range Preserve has received national and international acclaim—having been designated a national natural landmark in 1964 by the National Park Service and part of an "international biosphere reserve" in 1983 by the United Nations.



C. C. Lockwood

Pascagoula River

SINCE 1974, the Conservancy has been working with the State of Mississippi to protect some 35,000 acres of the meandering Pascagoula River's matchless bottomland hardwood forests and wetlands. The complex history includes the state's appropriation of $13 million to acquire the land and creation of the Mississippi Natural Heritage Program, which substantiated the ecological significance of the area.

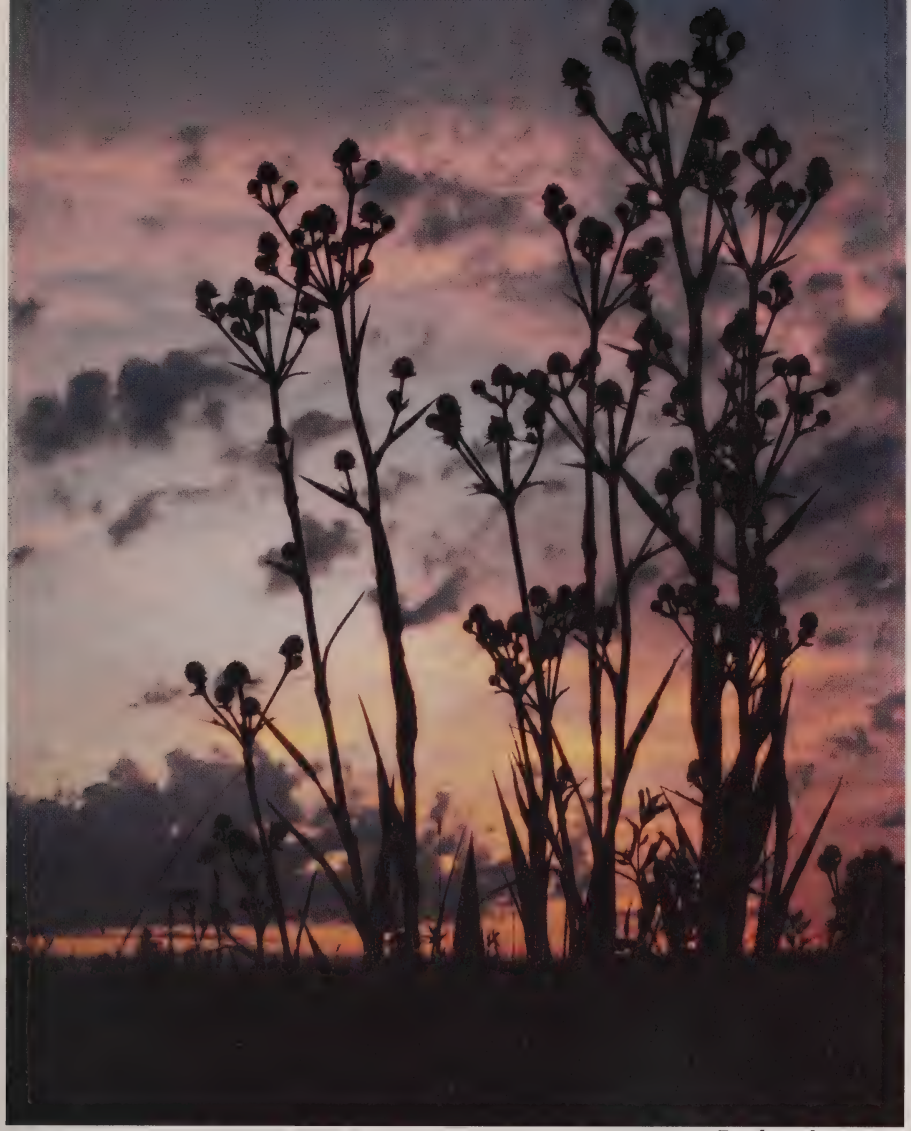
Charted for protection under the Conservancy's Rivers of the Deep South Program, the Pascagoula River Basin is the only known home of the yellow-blotched sawback turtle. It also hosts several species classified as rare, threatened, or endangered in the state: black bears, rainbow snakes, Atlantic sturgeons, swallow-tailed kites, and Gulf Coast glassy water snakes. Encompassing oxbow lakes, frontage on the Pascagoula River, and large stretches of two of the state's finest clear-water streams, the vast wilderness is managed by the Mississippi Department of Wildlife Conservation.

Prudence and Patience Islands

AN ALLIANCE WITH many conservation successes to its credit—including establishment of the Rhode Island Natural Heritage Program—solidified in the late seventies when The Nature Conservancy and the Rhode Island Department of Environmental Management joined forces to protect two Narragansett Bay islands. Meeting challenge after challenge during long negotiations, the Conservancy was able to purchase the northern portion of Prudence (670 acres in 1977) and all of Patience (203 acres in 1980) for the state.

Today the properties and their fine habitats (the salt marshes here support a host of migratory waterfowl species as well as fish and shellfish) are an essential part of Narragansett Bay Islands Park. One more register of their importance—and an aid to their preservation—is the fact that they fall within the Northeast's first "national estuarine sanctuary," designated by the National Oceanic and Atmospheric Administration's Office of Coastal Zone Management in September of 1980.

Robert Perron



Susan Bournique

Rattlesnake master

Osage Prairie Natural Area

MOKO, Mo-No, Monegaw, Niawathe, Wah Kon-Tah, Tzi-Sho, Wa-Sha-She Prairies. . . . Besides bearing Osage Indian names, all of these grassland preserves share a common manager: Missouri's Department of Conservation, to which the Conservancy is leasing them. Indeed, the Conservancy's confidence in this agency's management abilities has resulted in the gradual transfer (through sale) to the department of all the properties that make up Osage Prairie, another grassland sanctuary.

Composed of many parcels acquired over the years (primarily with funds provided by the late Miss Katharine Ordway), 1,115-acre Osage Prairie is one of the healthiest and largest assemblages of authentic native grassland in southwestern Missouri. Here, fertile soils sprout a quilt of big and little bluestem, Indian grass, and showy prairie forbs—even Mead's milkweed (*Asclepias meadii*), a candidate for federal protection. The greater prairie chicken, endangered in the state, inhabits the rolling grassland. The Missouri Department of Conservation has initiated a recovery plan for this beleaguered bird.

Gary Meszaros

Great horned owl

Big Walnut Natural Area

OWNED IN PART by the State of Indiana and in part by the Conservancy, Big Walnut encompasses a beech/sugar maple/tulip poplar climax forest and boasts a relict stand of hemlock and Canada yew. The site's great blue heron rookery supports some 40 to 50 nests. Great horned owls (above) also inhabit the 298-acre preserve, which is managed by the Indiana Chapter and the Indiana Division of Nature Preserves.

Big Walnut will become one of many dedicated state nature preserves, a designation that partially reflects the strong bond between the Conservancy's Indiana Chapter and the Indiana Department of Natural Resources. This 25-year-old partnership gave rise to the Indiana Natural Heritage Program and the Conservancy's first natural areas registry program. Conservancy efforts have contributed substantially to the state's system of nature preserves, which now embraces more than 10,000 acres. Moreover, a new cooperative endeavor—the $10-million Indiana Natural Heritage Protection Campaign—has been designed to complete this preserve system within a decade. The campaign's success depends largely upon the Conservancy's ability to raise $5 million from private donations—a total that will be matched by public resources.

Santanoni Preserve

A 9,000-SQUARE-MILE region in northern New York, the Adirondack Park is the largest protected sanctuary in the United States, outside Alaska. The park is not only vast but also contains wilderness tracts that are still relatively unexplored; in fact, it has been called "the land nobody knows."

In 1972, the Conservancy initiated a long-term project to safeguard critical private lands within the park. The first protected site, 12,500-acre Santanoni Preserve, was purchased in cooperation with the State of New York using a generous anonymous donation and matching funds from the Department of Interior's Bureau of Outdoor Recreation (now called the Land and Water Conservation Fund). It was immediately transferred to the state for inclusion in the park's "forever wild" forest preserve.

Through its Adirondack Conservancy Committee, the Conservancy has, to date, preserved over 100,000 acres in the Adirondacks. Some of the lands have been conveyed to the state; others are owned by the Conservancy or are protected under conservation easements (65,000 acres) monitored by the Adirondack Committee.

Susan Bournique

Enchanted Rock

INDIAN LORE and endemic plant species abound at Enchanted Rock—an ancient pink granite dome in central Texas. A sandy creek branches around its base, intermittently dry in the arid Texas summers. In 1978, the Conservancy purchased 1,640 acres here for the Texas Parks and Wildlife Department, safeguarding a remarkable array of natural communities (oak savanna, oak-hickory woodland, riparian associations, and mesquite grasslands) and their wealth of rare plants. Prominent among these are *Isoetes lithophylla* (a quillwort), *Blechnum occidentale* (a small fern), and *Campanula reverchonii* (a bellflower).

Enchanted Rock State Natural Area also bears traces of Indian civilization tracing back some 12,000 years. There are more than 100 state registered—and one nationally registered—artifact sites within the park. The rock was apparently regarded with reverence and awe by prehistoric peoples, who saw spirit fires on its summit (non-believers now cite the reflective properties of mica) and heard cries after rainstorms (perhaps the sound of rock drying in the sun and wind). Such experiences are still open to the hikers and tent campers who frequent these state-protected wildlands today.

Robert W. Parvin

D. Daniel Boone

Snow trillium

Trillium Site

A TINY, DELICATE member of the lily family, the snow trillium is endangered in Maryland. After a botanist from the state's heritage program identified Maryland's finest stand of *Trillium nivale,* he recommended its protection through the natural areas registry program, which is overseen by the Conservancy's Maryland Field Office. The director of the registry program subsequently contacted the site's owner. Upon learning about the presence of this rare plant on his rocky Potomac River hillside, the landowner readily agreed to register the property, thus voluntarily safeguarding the uncommon occurrence.

The state/Conservancy partnership that made protection of this Maryland site possible is not unique. Such cooperative efforts occur in other states having both heritage and registry programs—Massachusetts, Michigan, Connecticut, Iowa, Indiana, Minnesota, Washington, and Rhode Island.

NEW PROJECTS

ARKANSAS

Blue Heaven Cave (Marion County). Federally listed as endangered, Ozark big-eared bats (*Plecotus townsendii ingens*) have made Blue Heaven Cave their nursery. In fact, the cave is used by one-third to one-half of the subspecies' known population. A management agreement monitored by the Conservancy's Arkansas Field Office protects a five-acre site encompassing this critical habitat. The field office also is working to safeguard another cavern, some four-and-a-half miles from Blue Heaven. It serves as a hibernaculum for the same maternity colony and for the males, which disperse in summer months but rejoin the females to hibernate.

CALIFORNIA

Cosumnes River Preserve (Sacramento County). Scientists estimate that riparian forests have been reduced to one-tenth of one percent of their original distribution in California. Lying along Bear Slough, a tributary of the Cosumnes River, a recently purchased 85-acre site supports a fine example of the little that remains. Though valley oaks are usually found in old, evenly aged stands, the community at Cosumnes River bears the state's largest remaining group of old *and* young trees, an indication that the oaks are still reproducing. An open area adjacent to the forest draws wintering waterfowl and sandhill cranes. The California Nature Conservancy, which will manage the new preserve, is raising $148,750 to complete the project.

COLORADO

Mexican Cut—New York Lode Addition—(Gunnison County). Thanks to a donation of $10,000 from the Anschutz Family Foundation, the Conservancy purchased a 10-acre parcel for inclusion in Mexican Cut, a Rocky Mountain preserve whose exemplary aquatic ecosystem has been the site of biological and scientific studies since 1925. Lying downslope from pristine Galena Lake, the 430-acre sanctuary embraces a series of glacial terraces, small lakes, and kettle ponds. The secluded waters of its 17 interconnected ponds harbor an array of zooplankton and large populations of tiger salamanders. Owned by the Conservancy, Mexican Cut is administered by the Rocky Mountain Biological Laboratory, which maintains a high-altitude research station near the preserve.

FLORIDA

Lower Escambia River — Addition — (Escambia and Santa Rosa Counties). A 7,066-acre gift of land from the St. Regis Paper Company extends Conservancy protection along an 18-mile stretch of river corridor critical to the continued vitality of the Escambia Bay's fisheries. Valued in excess of $3 million, the addition will be conveyed to the Northwest Florida Water Management District within the state's "Save Our Rivers" program. All told, Conservancy-acquired land here totals 17,042 acres—bottomland hardwood forests and saltwater and freshwater marshes.

ILLINOIS

Matanzas Prairie West (Mason County). In early March you can hear them: groups of frogs joining in to mark the start of their breeding season. Appropriately named Illinois chorus frogs, these tiny amphibians—one-and-a-half to two inches long—are threatened in the state. They inhabit the small ponds scattered across Matanzas Prairie West, the only high-quality wet sand prairie left in central Illinois. Dominated by cordgrass and bluejoint, the recently purchased 28-acre grassland will be transferred to the Illinois Department of Conservation and dedicated as a state nature preserve.

INDIANA

Buffalo Flat (Dubois County). Described as "a real southeastern bottomland swamp" occurring in the Midwest, Buffalo Flat is an extensive southern Indiana wetland system. The plant community here, primarily a swamp cottonwood/pumpkin ash association, is threatened in the state. Biologists also have recorded several state-listed plant and animal species, including Virginia willow (endangered), American snowbell (threatened), yellow-crowned night heron (threatened), and northern copperbelly watersnake (threatened). The first acquisition for a larger projected assemblage, the 296-acre parcel is managed by the Indiana Chapter and will be dedicated as a state nature preserve.

James-Tippecanoe Wetland—Addition—(Kosciusko County). Linking Lake Tippecanoe and James

Lake, this expanse of shallow freshwater marsh, deep freshwater marsh, and shrub swamp is part of an outstanding wetland complex in northern Indiana. It provides breeding, nesting, and feeding grounds for numerous waterfowl and hosts three plant species considered rare in Indiana: shinleaf, bog buckbean, and an uncommon bladderwort. An 8-acre exchange for a 10-acre addition brings Conservancy-protected land to 221 acres. The preserve has been conveyed to the Muncie YMCA and dedicated as the Edmund and Virginia Ball Wetland Nature Preserve.

Pokagon State Park (Steuben County). At the request of the Indiana Department of Natural Resources, the Conservancy's Indiana Chapter assisted in the acquisition of an eight-acre addition to the Pokagon State Park. The property has been transferred to the department's Division of State Parks for management.

MARYLAND

Pyles Property (Prince George's County). Donated to the Conservancy by Glen O. Pyles, this 52-acre woodland has been transferred to the Chesapeake Bird Sanctuary, a nonprofit group dedicated to rescuing, rehabilitating, and releasing birds and other ailing wildlife. The sanctuary will use the land for its rehabilitation programs.

MICHIGAN

Grass Bay Preserve — Addition — (Cheboygan County). This Lake Huron preserve's diversity of habitats—dunes, grassy swales, cedar swamp, and woodlands—gives rise to a profusion of plant species. Some 250 vascular plants occur here, including 25 orchids and three Great Lakes endemics classified as threatened in the state: Pitcher's thistle, Houghton's goldenrod, and dwarf lake iris. Managed by the Grass Bay stewardship committee, the refuge now embraces 242 acres. The Conservancy's Michigan Chapter and the Michigan Federated Garden Clubs are raising funds for the 40-acre addition.

Orchis Fen Preserve (Emmet County). A 38-acre purchase protects the key portion of an exemplary northern fen wetland, site of the Lower Peninsula's only known occurrence of the small round-leaved orchis (*Orchis rotundifolia*), endangered in Michigan. Lying at the center of a wooded cedar swamp, the fen also hosts pitcher plants, sundews, bog buckbean, and several orchid species. The property has been conveyed to the Little Traverse Conservancy.

MINNESOTA

Crookston Fen (Polk County). Lying along the shoreline of the ancient glacial Lake Agassiz, this calcareous fen was identified by staff of the Minnesota Natural Heritage Program and is a protection priority of the Minnesota Chapter's Critical Areas Campaign. The year-round wet fen and its surrounding mesic prairie support an orchid endangered in the state and three other plant species threatened in Minnesota. Three bird species of special concern also inhabit the grassland: yellow rail, sandhill crane, and greater prairie chicken. The 383-acre preserve has been transferred to the Minnesota Department of Natural Resources for management under its Scientific and Natural Areas Program.

NEVADA

Ash Meadows (Nye County). The largest oasis in the Mojave Desert, Ash Meadows is a unique aquatic ecosystem encompassing 12 major spring systems and their outflows, as well as numerous spring seeps. The systems and seeps support ash-mesquite forests, mesquite-bosque cienegas, and other rare Great Basin community types. But the land's greatest boast is that it harbors more than 20 endemic plants, fish, and invertebrates that occur nowhere else on Earth. They include four fish endangered nationwide and seven plants that are candidates for federal protection. The Conservancy has purchased 12,613 acres in Ash Meadows, most of which has been transferred to the U.S. Fish and Wildlife Service, which will manage the unique ecosystem as a national wildlife refuge. Partial funding for the acquisition—one of the Conservancy's most ecologically significant projects to date —was provided by the Richard King Mellon Foundation through the National Wetlands Conservation Project and by the Katharine Ordway Endangered Species Conservation Program, supported by the Goodhill Foundation.

NEW YORK

Bear Swamp—Addition—(Albany County). Taking in large portions of Big Bear and Little Bear Swamps, this preserve is dominated by relict rhododendron populations—one of the best examples of rhododendron swamp in the state. The site's deep sphagnum mat has attracted palynologists (scientists studying pollen deposits) for many years. The new 30-acre addition encompasses a third of Big Bear's swamp and brings the sanctuary's acreage to 310. Designated a national natural landmark, the preserve is managed by the Eastern New York Chapter, which is raising funds to complete the project.

Robert W. Parvin

Tres Corrales

An "island" of wild country surrounded by intensive agriculture, Tres Corrales Ranch bears one of Texas's two largest Tamaulipan subtropical woodland forests—an endangered and diminishing native plant community. Owing to the fertile soils of the Rio Grande Valley, the shrubs making up this forest—typically acacias, mesquite, Texas ebony, anacua, and lime prickly ash—have attained tree height. A variety of rare animals also occur here, including the Rio Grande siren (an aquatic salamander endangered throughout its range), and Texas tortoise (state-listed as threatened), as well as giant toads, black-striped snakes, and northern cat-eyed snakes (all endangered in Texas). Two felines federally classified as endangered have been sighted at Tres Corrales—the ocelot (*Felis pardalis*) and the jaguaroundi (*Felis yagouaroundi cacomitli*).

With a grant from the Leonhardt Fund of the Communities Foundation of Texas, the Conservancy purchased 42 acres of the Tres Corrales Ranch in late 1983. In early 1984, it acquired another 308 acres with a loan from the Texas Chapter's Land Preservation Fund, as well as a right of first refusal to buy an additional 800 acres. The 350-acre preserve is managed by the Texas Field Office and ultimately will be conveyed to the U.S. Fish and Wildlife Service.

OHIO

Buzzardroost Rock—Addition—(Adams County). A national natural landmark, Buzzardroost Rock is topped by a nationally significant shortgrass prairie plot. A newly acquired nine-acre parcel is a critical inholding lying between Buzzardroost and Red Rock Preserves. Both sanctuaries are included in the Edge of Appalachia Preserve System—over 4,500 acres owned and managed in part by the Cincinnati Museum of Natural History, in part by the Conservancy's Ohio Field Office.

Pickerington Pond—Addition—(Franklin County). A gift of Mrs. Helen G. Crane, this 57-acre addition buffers the preserve's wetland habitat—a haven for waterfowl. The character of this rolling terrain, whose ponds and marshes swell and recede with fluctuating water levels, closely resembles that of prairie pothole country farther west. The new tract will be conveyed to the Columbus and Franklin County Metro Park District, which manages the existing preserve. Conservancy-protected land here now spans 354 acres.

WASHINGTON

Skagit River Bald Eagle Natural Area—Addition—(Skagit County). Now totaling 924 acres, this sanctuary is one of the five most significant bald eagle wintering areas in the lower 48 states. (*Haliaeetus leucocephalus* is federally listed as threatened in Washington and endangered in 43 other states.) A 46-acre addition takes in sections of the Skagit River that draw high numbers of spawning chum salmon. The salmon, which die after egg-laying, are the eagle's primary winter food. Owned in part by the Conservancy, in part by the Washington State Department of Game, the preserve is managed cooperatively by the department and the Conservancy's Washington Field Office. Major funding for this project was provided by an anonymous donor. The new parcel was charted for protection by the Conservancy's Katharine Ordway Endangered Species Conservation Program.

WISCONSIN

Spring Green Prickly Pear Prairie Natural Area—Addition—(Sauk County). In summer, temperatures here can soar to 100 degrees F. during the day, then plunge 60 degrees or more at night; the sandy soils retain little moisture. But the preserve, which takes in part of Wisconsin's best and largest sand prairie, is ideal for reptiles and invertebrates that proliferate in its desert-like conditions: six-lined racerunners, box turtles (endangered in the state), glass lizards (so named for the transparency of their young), as well as various spiders, cicadas, and tiger beetles. Years ago the Conservancy's Wisconsin Chapter joined the Madison-based Head Foundation, the Wisconsin Scientific Areas Preservation Council, several landowners, and scientists from the University of Wisconsin to protect this critical site. A management agreement on five acres extends the preserve's acreage to 485, all cared for by the Wisconsin Chapter.

FALL TOUR OFFERED: ADIRONDACK MOUNTAINS

Covering 9,000 square miles in northern New York, the Adirondack Park is the largest protected sanctuary in the continental U.S. More than 2½ million acres of the park are protected as "forever wild."

The Adirondack tour offers Conservancy members and their guests the chance to visit the Park on the weekend of September 28-30, 1984. You will learn about the role the Adirondack Conservancy has played in preserving this vast wilderness and stay at the famous and historic Ausable Club, which owns and protects over 7,000 acres in the heart of the high peaks region of the Adirondacks. The cost of the trip is $155.00. Don't miss this visit to "the land that nobody knows."

For details, write to Adirondack Fall Tour, c/o Travelworld, 1500 Wilson Boulevard, Arlington, Virginia 22209, or call toll-free 800/336-5500 (Virginia residents call 703/525-3605). Space is limited.

THE WISHING WILL

If your wish is to see natural areas forever preserved, make it your will.

Through your will, you can protect habitat vital for our nation's critically threatened plants and animals . . . and for the enrichment and enjoyment of generations to come.

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Alice A. Pinsley, Director
The Nature Conservancy
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294 Washington Street, Suite 749
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From time to time, The Nature Conservancy exchanges membership lists with other conservation organizations whose work might also interest you. In this way, we are able to increase the Conservancy's membership at a lower cost than would otherwise be possible. However, if you prefer *not* to receive these mailings from other organizations, please attach the mailing label from this magazine (or copy the label *exactly*) and mail it to:

Membership Secretary
The Nature Conservancy
1800 North Kent Street
Arlington, Virginia 22209

CHAPTER AWARDS ANNOUNCED

The Conservancy's Board of Governors recently voted to present this year's Outstanding Chapter Award to California and the Outstanding Chapter Progress Award to Connecticut. In making the announcement, Conservancy President Bill Blair commended the California Chapter for its impressive Critical Areas Campaign, under which seven major preserves totaling 11,800 acres were acquired. In addition to the $11.5 million needed to acquire the preserves, the chapter raised $2.5 million for their permanent management.

The Connecticut Chapter was cited for its strong start on the Connecticut Critical Areas Program and for its success in establishing a Natural Diversity Data Base in the state.

Both awards will be presented on September 22 at the Conservancy's 1984 Annual Meeting in Norfolk, Virginia.

PHOTOGRAPHY WORKSHOP AT VIRGINIA COAST RESERVE

On the weekend of October 12-14, 1984, a nature and wildlife photography workshop will be held at the Conservancy's Virginia Coast Reserve. Both amateur and professional photographers are invited to learn techniques of nature photography through lectures, slide shows, and field trips to the barrier islands that make up the Reserve. For details, contact: John Hall, Virginia Coast Reserve, Brownsville, Nassawadox, Virginia 23413; telephone (804) 442-3049.

"DUCK STAMP" ANNIVERSARY

1984 marks the 50th anniversary of the Duck Stamp program, one of the nation's oldest and most successful wildlife conservation efforts. Duck Stamps (formally named Migratory Bird Hunting and Conservation Stamps) must be purchased each year by anyone age 16 or older who hunts waterfowl. Revenues from the sale of the stamps are used to buy wetlands for the National Wildlife Refuge System, administered by the U.S. Fish and Wildlife Service. Nearly 89 million Duck Stamps have been sold, providing $285 million for the conservation of 3.5 million acres—all or part of 186 national wildlife refuges and many smaller waterfowl areas. Thanks to Duck Stamp receipts, the Conservancy has been able to acquire numerous wetlands across the country (such as Barrows Ranch in Texas, Alabama's Overflow Bottoms, and St. Vincent's Island in Florida) for inclusion in the refuge system.

Duck Stamps may be purchased at most post offices and some wildlife refuges for $7.50 or ordered by mail for $8.00 (includes 50 cents for postage and handling) from the U.S. Postal Service, Philatelic Sales Division, Washington, D.C. 20265. The 50th Anniversary (1984-85) Duck Stamp went on sale on July 2. Hunters and nonhunters are encouraged to buy the colorful stamps.

GIVE A BEAR THE BUSINESS!

Vacation property, second homes, any appreciated surplus property can be turned into a conservation contribution to The Nature Conservancy. Find out how your gift of real estate can help the Conservancy provide shelter for wildlife . . . and for your income. Advantages of a gift include:

- Federal and state tax savings
- Fast disposition
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- Elimination of ownership costs

For further information, please write to Trade Lands, The Nature Conservancy, 1800 N. Kent Street, Arlington, Virginia 22209; or call (703) 841-5327.

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The Katharine Ordway Associates program was established in 1982 to recognize those individuals who—with a minimum annual gift of $1,000 to the General Fund—play a leadership role in supporting the national operations of The Nature Conservancy.

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